

# Model #: SU5000RT4UTF

## SmartOnline 5kVA On-Line Double-Conversion UPS, 6U Rack/Tower, 208/120V NEMA outlets



### **Highlights**

- 5kVA / 5000VA / 4500 watt on-line double-conversion UPS; 0.9 power factor
- 208/120V 60Hz output; high efficiency economy mode option
- 6U Rack/Tower compatible; Hot swappable battery modules
- USB, RS232 & EPO ports; support for SNMP/WEB and contact-closure card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- NEMA L6-30P input (3 wire); L6-30R, L6-20R & 5-15/20R outputs

### **Description**

Tripp Lite SU5000RT4UTF 5000VA / 5kVA / 4500 watt on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a 6U rack/tower configuration. Full-time active power conditioning provides clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. 4U UPS power module with internal batteries and 2U step-down transformer installs in a total of 6 rack spaces (6U) with a maximum installed depth of only 20.75 in. / 52.7 cm. Maintains full-time sine wave output within 2% of 208 and 120V nominal at 60Hz during brownouts as low 100V and overvoltages as high as 300V. Expandable runtime is supported with optional BP192V12-3U external battery packs. Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement. Double-conversion operation converts raw input from AC to DC, then resynthesizes output power back to perfect sine wave AC with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types. Highly efficient operation in optional economy mode significantly reduces BTU heat output and operating energy costs. Network-grade AC surge and noise suppression. Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232 and USB interfaces. Optional SNMP/Web and contact-closure communications card accessories available. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Included PowerAlert monitoring software offers detailed site power and UPS updates with support for safe auto-shutdown of connected systems as UPS batteries become depleted. Included software packages include PowerAlert Local, PowerAlert Network Shutdown Agent and PowerAlert Network Management System for complete support for a wide variety of application types. Supports Emergency Power Off (EPO) via built-in interface. Front panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS functions with support for a variety of control options to support advanced UPS settings and configurations. LED / LCD display panel rotates for viewing in rackmount or tower configurations. L6-30P input, plus 2 L6-30R, 2 L6-20R and 12 5-15/20R outlets. External battery packs are field replaceable and hot swappable. \$250,000 connected equipment insurance;

#### Package Includes

- SU5000RT4UHV UPS Power Module
- SU5000XFMRT2U Stepdown Transformer
- 4 Post Rackmount Installation Rails
- PowerAlert software and complete cabling

# **Features**

- Tripp Lite SU5000RT4UTF 5000VA / 5kVA / 4500 watt on-line, double-conversion UPS system in a 6U rack/tower configuration (4U UPS power module with internal batteries + 2U step-down transformer)
- Full-time active power conditioning maintains clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- L6-30P input plug, plus 2 L6-30R, 2 L6-20R and 12 5-15/20R outlets
- Included rail kits support rackmount installation of both included modules in 4 post racks
- Optional 2POSTRMKITHD supports installation in 2 post 19 inch racks (2 required for SU5000RT4UTF)
- Optional 2-9USTAND supports upright tower placement (1 required for SU5000RT4UTF)
- Maximum installed rack depth of only 20.75 in. / 52.7 cm
- Maintains full-time sine wave output within 2% of 208V & 120V at 60Hz nominal in double conversion mode
- Corrects brownouts to 156V at full load (100V at 50% load or less)
- Corrects overvoltages to 290V at full load (300V at 90% load or less)
- Double-conversion operation offers full-time AC to DC, then DC to AC conversion to maintain perfectly regulated sine wave AC output with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types
- · High efficiency ECONOMY MODE operation significantly reduces BTU heat output and operating energy costs
- Network-grade AC surge and noise suppression
- Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232, USB and optional SNMP card slot interfaces
- UPS card slot supports one card-based network interface option (part # SNMPWEBCARD) or dry-contact monitoring accessory (part # RELAYIOCARD)
- · Optional SNMPWEBCARD offers communications and control via secure remote web and network interfaces
- Optional RELAYIOCARD supports six configurable hard contact closure outputs for custom event notification
- Optional RELAYIOMINI interface module offers three configurable hard contact closure outputs for custom event notification (requires removal of USB interface module)
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Includes Free PowerAlert monitoring software packages; PowerAlert LOCAL for desktops and small business networks, PowerAlert NSA (Network Shutdown Agent) for larger networks and PowerAlert NMS (Network Management System) for monitoring up to 250 SNMP-enabled UPS, PDU and other networking devices
- Front panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS functions with support for a variety of control options to support advanced UPS settings and configurations
- LED/LCD display panel rotates for viewing in rackmount or tower configurations
- Supports Emergency Power Off (EPO) via built-in interface
- Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement
- External battery packs are field replaceable and hot swappable
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- \$250,000 connected equipment insurance;

# **Specifications**

OUTPUT		
Output Volt Amp Capacity (VA)	5000	
Output kVA capacity (kVA)	5.0	
Output Watt Capacity (watts)	4500	
Output kW capacity	4.5	
Output power factor	0.9	
Crest Factor	3:1	
Nominal Output Voltage(s) Supported	120V; 208V	

Frequency compatibility	60 Hz	
Frequency compatibility details	Output frequency regulation +/- 0.05Hz (free running)	
Output voltage regulation (line mode)	+/- 2%	
Output voltage regulation (Economy line mode)	+/- 10%	
Output voltage regulation (Battery mode)	+/- 2%	
Built-in UPS output receptacles	12 5-15/20R outlet(s); 2 L6-20R outlet(s); 2 L6-30R outlet(s)	
Output circuit breaker	High voltage 20A breaker protects L6-20R outlets, L6-30R outlets are unbreakered; Low voltage 20A breakers protect 3 5-15/20R outlets each	
Output AC waveform (AC mode)	Pure sine wave	
Output AC waveform (battery mode)	Pure Sine wave	
INPUT		
Rated input current (at maximum load)	24A (208V)	
Nominal Input Voltage(s) Supported	208V AC	
UPS input connection type	L6-30P	
UPS Input cord length (ft.)	10	
UPS Input cord length (m)	3	
Recommended Electrical Service	30A	
BATTERY		
Full load runtime (minutes)	3.5 minutes (4500w)	
Half load runtime (minutes)	11 minutes (2250w)	
Expandable battery runtime	Supports extended runtime with optional external battery packs	
External battery pack compatibility	BP192V12-3U	
DC system voltage (VDC)	192	
Battery recharge rate (included batteries)	6 hours (from 10% to 90%)	

Replacement battery cartridge (internal UPS battery replacement)	RBC5-192 (qty 1)					
Battery Access	Front panel battery access door					
Battery replacement description	Hot-swappable, user replaceable batteries					
VOLTAGE REGULATION	/OLTAGE REGULATION					
Voltage regulation description	Online, double-conversion power conditioning					
Overvoltage correction	2% output voltage regulation during overvoltages to 280V (full load) / 300V (90% load or less)					
Undervoltage correction	2% output voltage regulation during undervoltages to 156V (full load) / 100V (50% load or less)					
LEDS ALARMS & SWITC	HES					
LED Indicators	6 LEDs indicate line power, online mode, economy/bypass mode, on-battery, charger and AC output status; LCD screen offers additional information and control options					
Front panel LCD display	Selectable LCD display with scroll and selection buttons enables UPS control and detailed monitoring options; LED/LCD panel rotates for viewing in rack/tower formats (see manual)					
Alarms	Unique audible alarms for all major UPS, environmental and power conditions (see manual)					
Alarm cancel operation	Alarm cancel switch					
Switches	2 Switches control off/on power status and alarm-cancel/self-test operation; 2 additional switches support set and execute scrolling LCD functions					
SURGE / NOISE SUPPRE	ESSION					
UPS AC suppression response time	Instantaneous					
EMI / RFI AC noise suppression	Yes					
PHYSICAL						
Installation form factors supported with included accessories	4 post 19 inch rackmount (mounting rail kit included)					
Included mounting accessory description	2 sets of adjustable 4 post rack rails included					
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITWM); Tower (2-9USTAND)					
Optional mounting accessory notes	2 sets of 2POSTRMKITHD required for 2 post rackmount installation of separate 4U power module and 2U transformer					
Primary form factor	Rackmount					
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	6.85 x 17.5 x 20.7					
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	17.4 x 44.5 x 52.6					

Installed whole system maximum rack depth (inches)	20.75
Installed whole system maximum rack depth (cm)	52.7
Installed whole system total rack space height (rack spaces)	6U
Secondary form factor	Tower
UPS / Power Module weight (lbs)	113.6
UPS / Power Module weight (kg)	51.6
Stepdown transformer dimensions (height x width x depth / inches)	3.5 x 17.5 x 20.75
Stepdown transformer dimensions (height x width x depth / cm)	8.8 x 44.4 x 52.7
Stepdown transformer weight (lbs)	76
Stepdown transformer weight (kg)	34.5
UPS Shipping dimensions (height x width x depth / inches)	22 x 25 x 30
UPS Shipping dimensions (height x width x depth / cm)	55.9 x 63.5 x 76.2
Shipping weight (lbs)	278
Shipping weight (kg)	126.2
UPS housing material	Sheet metal
Cooling method	Fan
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	5 to 122 F / -15 to 50 C
Relative Humidity	5% to 90% (non-condensing)
AC mode BTU / hr. (full load)	1767
AC economy mode BTU / hr. (full load)	638
Battery mode BTU / hr. (full load)	1700

AC economy mode efficiency rating (100% load)	96%			
Operating Elevation (ft)	0 to 6560 ft. / 0 to 2000 m			
Audible Noise	65 dB at 1m front side			
Operating Elevation (m)	0-2000 m			
COMMUNICATIONS				
Communications interface	USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface			
Network monitoring port description	Two contact closure monitoring options available - RELAYIOCARD with six configurable contact closure outputs (uses UPS card slot) and RELAYIOMINI with 3 configurable contact closure outputs (requires removal of USB port module)			
PowerAlert software	Included			
Communications cable	USB, DB9 serial and EPO cables included			
WatchDog compatibility	Yes			
LINE / BATTERY TRANS	FER			
Transfer time	No transfer time (0 ms.) in online, double-conversion mode			
Low voltage transfer to battery power (setpoint)	156V (full load) / 100V (50% load or less, derates linearly)			
High voltage transfer to battery power (setpoint)	280V (full load) / 300V (90% load or less)			
SPECIAL FEATURES				
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported			
High availability UPS features	Automatic inverter bypass; Hot swappable batteries			
Green & high efficiency features	High efficiency economy mode operation; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation			
CERTIFICATIONS				
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category B (EMI); ROHS (Restriction of Hazardous Substances)			
UPS Certification details	IEC 61000-4-5 1995 B Surge Immunity			
WARRANTY				
Product Warranty Period (Worldwide)	2-year limited warranty			
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance			

# **Related Items**

**Optional Products** 

Related Model	Description	Qty.
BP192V12-3U	BP192V12-3U - External Battery Pack for UPS System	1
2-9USTAND	Enables Tower Placement of Rackmount UPS Systems	1
SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
RELAYIOMINI	3 Relay I/O Mini-module	1
RELAYIOCARD	Programmable Relay I/O Card	1
AS400CABLEKIT2	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	1
WEXT3-SU5000HV	3-Year Extended Warranty - For SU5000RT3UHV UPS only	1
WEXT5-SU5000HV	5-Year Extended Warranty - For SU5000RT3UHV UPS only	1
2POSTRMKITHD	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	1

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?variables.txtModelID=4529.

Copyright © 2013 Tripp Lite. All rights reserved. All trademarks are the sole property of their respective owners. Tripp Lite has a policy of continuous improvement. Specifications are subject to change without notice. Photos may differ slightly from final products.